

PRINCE
OF-GEORGE
COMPUTER

OWNER'S
MANUAL

*Prince[™]
on-board[™]
computer*



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V-01418

ALL MODELS POBC-A

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(WARRANTY CARD PACKED SEPARATELY, FILL OUT & RETURN WITHIN 10 DAYS OF PURCHASE)



INTRODUCTION

This fine piece of electronic equipment represents the state of the art in automotive micro electronic circuitry and will give you many years of informative and efficient driving.

A primary feature of the Prince On-Board Computer is the vehicle location section enabling you to know your position on a highway relative to the mile post markers. If you have a CB Radio, you know how important your 10/20 is! Now you will always know—to the exact tenth of a mile—your vehicle position and you'll have it instantly.

Road related information such as turnoffs, accidents, detours and many other events of a known location can be entered and stored in your computer's memory bank. Five separate memories are provided with an easy entry/recall system so that instant access is available. An audio alarm will alert you one mile prior to an event stored in a memory. A scan feature enables you to quickly check all memories at any time.

Fuel and cost information is provided from another section of your new

computer. You may check your instant cost-per-mile or average cost-per-mile anytime to compare against your driving habits and speed to discover your most economical driving.

Instant miles-per-gallon and average miles-per-gallon can also be recalled on demand to help you improve economy. Record keeping becomes easy because your cost-per-gallon, total number of gallons used and distance traveled are stored until you clear at your next fill up. The distance traveled on that tank of fuel is also recorded.

In the "travel" or trip section of the computer you will discover many interesting features. When you're starting a trip of known distance, enter that distance by depressing the "DISTANCE TO GO" button. As you travel you can then recall your "ETA" (estimated time of arrival) as well as the distance remaining and the distance traveled. The "ET" (elapsed time) of your trip will also be recorded by an elapsed time clock and will display on demand your "ET" in hours, minutes and seconds. Time of day may also be displayed in hours, minutes and seconds on demand. If you wish to be



reminded of something at a particular time in the future, you may set an alarm to signal you in a given number of minutes. The time alarm is a *pulsating* audio signal to distinguish it from a memory alarm which is a *steady* audio signal. As you are traveling you can display "MPH" on demand or read your speed in kilometers. If you wish, all distance functions may be read in kilometers, but you must enter the information in kilometers to do so. If you choose to leave the highway, you may stop the mile counter until you return to the highway. The "RUN" button is depressed and the red L.E.D. indicator light goes off to hold the count. Other functions, however, are not affected and you still are measuring fuel consumption rates, distance traveled, time, and speed. When you return to the highway, minutes or even days later, depress "RUN" and the count resumes. If you are returning or going in the opposite direction, merely switch the "UP/DOWN" switch to the opposite mode and resume count. Any difference or deviation in the exact mile marker location is corrected by depressing the "UPDATE" button which will round off the mile number to the nearest whole mile. It will not change or modify the calibration number. The "UPDATE" button is also useful for small corrections due to slippery roads or several lane changes in a mile.

The calibration counter gives a number that specifically tailors the computer for your vehicle, allowing calibration in small increments to correct for tire wear, different wheels and various transmission/axle combinations giving you an exact mile measurement correct to 0.0001% of a mile! Most vehicles will be accurate to about 8" when calibrated close to 800.0.

The bright .3" L.E.D. displays have a brightness control which will allow you to dim them at night. The filters have been engineered to transmit a maximum of light from the displays while reducing glare and reflections from ambient light. The displays and keyboard lighting may be turned off without turning the computer off. You may then, at any time, turn the displays on to check out any functions or memories. The illumination level of the keyboard is controlled by the light switch on your instrument panel and will adjust with instrument panel lighting when wired as specified in the installation instructions.

When your vehicle is parked, the electrical power usage is about 30mA, not much more than the clock in your car. All programming and memory information is retained so that day-to-day and week-to-week driving information can easily be checked.



HOW THE COMPUTER RECEIVES INFORMATION

Your Prince On-Board Computer can only compute location, fuel, and cost information when it is receiving the proper signals from your vehicle. It is important that utmost care be taken when installing the transducers because the initial information about fuel flow and vehicle movement is begun at these points.

GASOLINE ENGINES

The fuel transducer installed on your fuel line between the fuel pump and the carburetor measures the flow of gasoline that your engine is using. The flow rate is converted into electronic signals which are received by the computer for calculating fuel economy functions.

The speed transducer attached to the speedometer cable converts cable REVS into electronic impulses. These impulses are the signals used in

calculating the speed and vehicle location data. These impulses are also the basic information used by the computer for the calibration number that you will use in the measurement of a mile.

Power for the computer comes from the vehicle's electrical system in two forms. The first is a constant power flow from the battery so that the computer's memory systems will remain active when the vehicle is not running. The second form of power comes from the ignition so that when the battery is being charged, additional power is available for lighting the displays. The illumination of the keyboard and the nomenclature for each key is by fibre optic ribbon. The ribbon's light source is internal and the level of light is controlled by the vehicle's instrument panel light switch. Additionally, the computer is grounded to the vehicle's ground.



SAFETY TIPS

When determining the optimum location for your computer in the vehicle, keep in mind that the *keyboard* should be located as close as possible to your normal reach from a seated position. The *displays* should be visible without having to turn your head or otherwise remove your eyes from the road any longer than you would to read your instrument panel gauges.

While you're getting used to your new computer, it is advisable that you have a passenger in the vehicle to assist you in the initial calibration of the unit. The other person can also help by driving while you try out the various functions. In this way you will get used to recognizing the numbers in the displays as they appear for each function when the appropriate key is selected.



INSTRUMENT LIGHTING

BRT/DIM - ON/OFF

Your new computer is lighted at night by a ribbon fiber optic system that is variable in light level when wired into your instrument panel lighting (see installation instructions). The frame around each key and the lettering above or below is softly illuminated to facilitate night driving. The L.E.D. displays may be dimmed at night by switching the "BRT/DIM" switch to "DIM". You may also turn off the displays completely by switching the "ON/OFF" switch to "OFF".

CHANGING BULBS

You should have no problems with the bulbs in the computer lighting package due to an extremely long life when used in automotive products such as the Prince On-Board Computer. You can expect 20 thousand + hours of life. (About 10 years of driving 5 hours each night!)

If you should experience a burned out bulb in the internal lighting package, the keyboard lettering will appear dark. Remove the access panel on the lower rear side and carefully remove the panel with bulbs and holders attached. Remove the bulbs and install replacements being careful to replace bulbs, optic elements and cover to original location. Replacement bulbs are available from the manufacturer.

The fuel flow transducer uses a #161 light bulb in the signal sender. If you should experience any irregularity in the "MPG" or "FUEL/USED" functions, check this bulb, clean if soiled or replace if burned out (see installation instructions).

CALIBRATION

The calibration system is based on the mile marker signs along most U.S. expressways. These mile posts are very accurate and, in fact, are surveyed points.

INITIAL CALIBRATION

Calibrating your computer will give you a four-digit number that represents the number of electronic pulses the counter will make within a mile. One mile will normally produce 800.0 (497.2 per km). Some vehicles will require a higher number and others a lower number. Your actual count will be an exact number for your vehicle whether it's 796.4 or 826.9. To calibrate your computer do the following:

<u>FUNCTION</u>	<u>KEYBOARD</u>	<u>DISPLAYS</u>	
A. Turn off counter	Run 		
B. Switch to calibrate mode	Norm  Cal		

C. Turn on counter as vehicle passes first mile post

Run



88.8



(counter starts)

D. Turn off counter as vehicle completes a measured mile at next mile post

Run



800.2



E. Switch to normal mode

Norm



800.2

0.0

F. Enter number

Cal

Enter



G. To calibration



Cal

0.0

800.2

Cal number shifts to right display

FINE ADJUSTMENT

Your vehicle is now calibrated to measure a mile. Fine adjustments can be made by changing the calibration number to add or subtract single pulses. Each pulse is about an 8" adjustment to the measure of a mile. If you increase the number from 800.2 to 800.9, you have in effect told the computer to add 56" to the measure between mile posts. Please check your "CAL" number for several mile markers as entrance ramps and overpasses will sometimes necessitate a mile post location that is several feet from an actual mile point. If your unit is calibrated correctly, the next mile will display at exactly the same time as the post aligns with your vehicle — mile after mile.

To enter an adjusted calibration number, use the keyboard entry system as you would to enter any other information — key in number, depress "ENTER", then depress "CAL".

To display your calibration number anytime, depress "CAL" and number will appear in right display.

If you should switch from "MI" to "KM" and then back to "MI" after you have calibrated and your "CAL" number rounds off to an even number; (example: 800.1 rounds off to 800.0), do not be alarmed. This is a function of the mathematics programmed into the microprocessor when it converts a mile "CAL" into a metric "CAL" number. You may easily re-enter your mile "CAL" number via the keyboard as explained earlier.

MILES OR KILOMETERS

If you choose to display information in kilometers, you must first enter all starting data (relating to distance) in kilometers. For example, distance to go would have to be entered in kilometers as would all memory locations. Any existing distances in the computer would have to be converted to kilometers first, such as "DIST" on the tank of fuel or "ODO" trip odometer readings.

To convert use the following:

1 mile = 1.609 kilometers

1 kilometer = .6214 mile
CALIBRATION 10

DIGITAL SPEEDOMETER (SPEED)

You may at any time display your vehicle speed in either MPH or KPH without any conversions. For example: to read your speed in KPH when you're traveling at 30 MPH,

<u>FUNCTION</u>	<u>KEYBOARD</u>	<u>DISPLAYS</u>	
A. Switch to KM	MI  KM		
B. Depress speed	Speed 		 KPH

To read your speed in MPH when traveling at 81 KPH,

A. Switch to MI



B. Depress speed



45.0

Vehicle location

81.0

KPH displayed

45.1

800.2

Mile "CAL" number
will appear

45.1

51.0

MPH

VEHICLE POSITION (10/20)

STARTING MILE POINT

To enter your current vehicle position into the computer, first determine whether the mile post markers are counting up or down and secondly what your beginning mile number will be. It is assumed that you have correctly calibrated your computer.

Example: Assume you're entering the expressway, the miles are counting "UP" and the first mile marker is 45. This means you should be ready at the 46 to start your count. Use only the left display.

<u>FUNCTION</u>	<u>KEYBOARD</u>	<u>USE LEFT DISPLAY</u>
A. Switch to normal mode	Norm 	
B. Turn off counter	 Run 	

C. Count up

Up



0.0

D. Key in starting mile 46.0

Down

4

6

0

46.0

E. Enter

Enter



46.0

F. Into 10/20

10/20



46.0

G. Turn on counter as you meet marker 46

Run



46.0

H. Start count

46.1

REVERSING DIRECTION

If you turn off the expressway and wish to reverse your direction,

FUNCTION

A. Turn off counter

B. Count down

Return to expressway,

C. Turn on counter

D. Resume count

KEYBOARD

 Run



Up



Down

 Run



USE LEFT DISPLAY

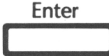
62.5

62.5

62.5

62.4

If you were counting *up* and then cross a state line or transfer to a new highway and suddenly find the next mile marker counting *down* from a different number — example: new mile post is 195.

<u>FUNCTION</u>	<u>KEYBOARD</u>	<u>USE LEFT DISPLAY</u>
A. Turn off counter		
B. Count down	 	
C. Key in new mile (194.0) one less than first mile post	   	
D. Enter mile		

E. Into 10/20

10/20



USE LEFT DISPLAY

194.0

F. Turn on counter as you meet marker 194

Run



194.0

G. Resume count

193.9

UPDATE

Should you find that the mile marker is occurring too early or too late and you know your "CAL" number is correct, the reasons then are usually due to: lane changing, slippery roads, wide or tight turns or other motion which will change your measure of a mile. This condition can easily be corrected by "UPDATING" at the next mile marker. Depress "UPDATE" at the marker post. The mile number in the left display will round off to the nearest whole mile. Your "CAL" number is not affected.

<u>FUNCTION</u>	<u>KEYBOARD</u>	<u>USE LEFT DISPLAY</u>
A. You are .1 mile different from mile post 76		76.1
B. Update to round off and correct the count	Update ☐	76.0
C. Resume count correctly		76.1

MEMORIES FOR MILEPOINT STORAGE

ENTRY AND RECALL

Five easily accessible memories entered and recalled through the keyboard are available for storage of pre-programmed mile points for stops, turnoffs, and interchanges. Road information such as accidents, obstructions, detours or other conditions also can be entered as they occur. Each memory may be replaced with new information as it occurs.

For example: You are leaving on a trip and wish to stop at your favorite restaurant located at exit "117" (usually exit numbers will also be a mile point). Then you change expressways at the "0" point. While on the highway you discover a traffic tie up near an accident at the "72.6". You also receive a message on the CB that road construction work at the "33" mile point requires a short detour. The sequence of entries would go as follows:



B. Enter

Enter

117.0

.

C. Memory 1

1

0.0

1 - 117.0

Memory 1 shifts to right display - left display returns to current location (0.0 because you have not yet started)

D. Program "0" for expressway change

0

0.0

1 - 117.0

Enter

E. Enter

0.0

1 - 117.0

2

F. Memory 2

0.0

2 - 0.0

G. Begin first part of trip

0.1 10:40.11

You have now completed lunch and resume your trip when you pass through the tie-up near the accident at the 72.6. Your right display shows time.

H. Enter location

Enter

72.6 12:15.22

I. Into Memory 3 as you pass by accident

3

72.5 3 - 72.6

Memory 3 shifts to right display - left display returns to current location.

J. Resume trip

72.5 3 - 72.6

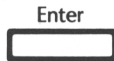
Your CB message now alerts you to the construction detour at the 33 mile point.

K. Program 33.0



33.0 3 - 72.6

L. Enter



33.0 3 - 72.6

M. Into Memory 4



72.3 4 - 33.0

Memory 4 shifts to right display - left display returns to current location

N. Resume trip - display any other function on right screen (shown MPG)



72.2 12.6

If you wish to recall any single memory.

O. Recall

Recall



4 1.8

12.6

P. Memory 4

4



4 1.8

4 - 33.0

Right display shows Memory 4 replacing MPG

Other functions which require the use of the recall button are "ELAPSED TIME" and "ALARM". Further explanation of these functions can be found under their appropriate headings elsewhere in the manual.

MEMORY SCAN

The "SCAN" function allows you to take a quick glance at any five locations stored in the memory by running through them in sequence.

A. Push scan

Scan



USE RIGHT DISPLAY

1 - 6.2

- Scan continuing

USE RIGHT DISPLAY

2 - 8.8

3 - 0.0

4 - 78.4

5 - 265.1

Memories may be used individually and information stored or recalled in any sequence. "SCAN" will always sequence 1 - 5. To stop "SCAN", depress any other function button.

AUDIO MEMORY REMINDER

Each memory will alert you with an audio alarm one mile prior to the preset mile point location. The right display screen will display that memory location while the alarm is on. The alarm may be stopped by-depressing the "ALARM" button or any other function button.

ESTIMATED TIME OF ARRIVAL (ETA)

DISTANCE TO GO (DIST TO GO)

Your estimated time of arrival or "ETA" is based on the speed you are traveling at that moment in time when you press the "ETA" button. The accuracy of the ETA is directly affected by the accuracy of your calibration number, time of day and the exact distance remaining to be traveled. Incremental adjustments to the distance remaining on a trip can be made enroute as you find them out by observing road signs, maps, etc. These adjustments can be entered via the keyboard anytime and will keep your "ETA" as accurate as possible. The "RUN" button must be "ON" for "ETA" to function. An example of how you might use your "ETA" is shown:

You are leaving on a trip of 297 miles at 9:16 a.m. and will travel most of that distance on expressways. You should program your On-Board Computer before you leave. Periodically check "ETA" once you are on the expressway, then again when you exit.

<u>FUNCTION</u>	<u>KEYBOARD</u>	<u>DISPLAY</u>
A. Check time	Time ☐	0.0 9:16.00

ESTIMATED TIME OF ARRIVAL (ETA) 25

B. Check calibration

Cal

☐

0.0

800.1

C. Key in miles and

2

9

7

0

297.0

800.1

D. Enter distance to go

Enter

Dist To Go

0.0

297.0

Before "ETA" can be checked, the vehicle must be moving, otherwise time of day will automatically display. Time of day will also display whenever you stop enroute. This is to prevent confusion which could be caused by an ETA projecting toward infinity.

At any point then, when the vehicle is moving, your arrival time can be quickly checked by depressing "ETA".

An interesting combination of displays can be used on a trip by setting the vehicle position (left) display to show remaining miles to go and the ETA in the right display. To set vehicle position to display miles to go, turn off "RUN" key in miles to go on left screen, switch up/down "DWN" to reverse count, depress "ENTER" and "10/20", then depress "RUN" and resume your countdown. Depress "ETA" and you now will have a continuous display of your remaining schedule. ETA will remain accurate when you stop and even when you add additional miles for side trips, etc. if you remember to log those extra miles into your trip odometer, then add them to "DIST TO GO".

Distance to go can be used and displayed as long as the computer knows ahead of time how far it will be going! The combination of distance to go and ETA most often will be used with the computer set up in the conventional manner with the vehicle position continuously displayed in the left display screen. This way you can keep track of your "10/20" on a marked highway regardless of your total trip mileage. Example:

<u>FUNCTION</u>	<u>KEYBOARD</u>	<u>DISPLAY</u>	
A. Check distance to go	☐ Dist To Go	72.4	166.6
B. Check ETA	☐ ETA	72.5	5:17.00



TRIPODOMETER (ODOM)

The electric trip odometer has a capacity of 999.9 miles and may be used to log entire trips or any legs of smaller distance within a trip. If you are leaving on a trip of known or *unknown distance*, zero out the trip odometer first, then one-way trip distance can be checked and logged so that when the return trip is made the distance will be known.

ELAPSED TIME (ET)

The elapsed time button on the keyboard is used for starting and stopping the time counter. To recall a display of elapsed time, the "RECALL" button must precede the "ET" button so the elapsed time will not be stopped. An indicator light dot in the upper left corner of the right display will go on when the elapsed time is counting.

The "ET" will stop and hold a measure of time in hours, minutes and seconds when "ET" is depressed once. When depressed the second time, "ET" resumes the count. You may stop and start "ET" in this manner any number of times limited only by the maximum elapsed time of 13 hours.

Elapsed time may be stopped and zeroed out by first depressing "ET", then "0", then "ENTER" and "ET". To restart, depress "ET" and a new count will begin.

When the elapsed time is counting, any other function may be displayed and any location memory may be recalled or entered without disturbing the elapsed time.

Examples:

<u>FUNCTION</u>	<u>KEYBOARD</u>	<u>DISPLAYS</u>
A. Vehicle location is 14.5 — MPG is 18.2 — "ET" is counting		

ELAPSED TIME 29

B. Stop ET

ET



14.5

18.2

Indicator light out

C. Recall ET

Recall



ET



14.5

6.4 1.18

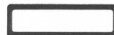
ET reads 6 hours,
41 minutes and 18 seconds

D. Reset ET to zero

0



Enter



ET



14.6

.00

E. Start ET

ET



14.7

.01

F. Read another function

Speed



14.8

30.0

ELAPSED TIME 30

G. Recall ET

Recall

ET

☐

14.9

: .24

H. Stop ET

ET

☐

15.0

: .36

I. Restart ET from a 4 hour starting point
Key in 400 (4 HRS, 0 MIN, 0 SEC)

4

☐

0

☐

0

☐

40.0

.36

J. Enter ET

Enter

ET

☐

15.1

4.00.00

K. Start ET

ET

☐

15.1

4.00.01

TIME ALARM

The time alarm may be programmed to call you at any time in the future up to a maximum of 99 minutes. Access to the alarm is gained through the "ENTRY" and "RECALL" buttons. When the audio alarm is sounding it can be recognized by its *pulsating* signal—different from the memory alarms which are *steady*. When the alarm is sounding, the right display screen will also show zeros indicating the time is up. To stop the alarm, depress the alarm button or any other function button.

If the vehicle ignition is turned off, the alarm will not sound.

Example :

FUNCTION

Set alarm to call you in 35 minutes

KEYBOARD

DISPLAYS

0.0

Vehicle at 0

102.0

102 miles to go

A. Enter 35 minutes

3

☐

Enter

5

☐

Alarm

☐

3.5

102.0

B. Into alarm

0.0

:34.59

The time will immediately
begin counting down.

You may now enter or recall any other function.

11.3

90.7

Vehicle position 11.3 miles 90.7 miles to go

C. To recall time remaining on alarm

Recall

Alarm

☐

11.3

:12.06

TIME OF DAY

Time of day is displayed in hours, minutes and seconds and is programmed by the keyboard. Time of day is available on demand by depressing the "TIME" button.

To set time of day if correct time is exactly 11:35.00

FUNCTION

A. Enter time on keyboard



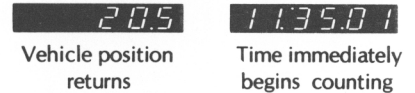
B. Enter time



C. To check time



DISPLAYS



FUEL ECONOMY FUNCTIONS

Fuel economy functions will display averages to the nearest tenth of a mile, kilometer, gallon or cent. These functions are all recalled by single buttons and will display only in the right screen.

DISTANCE DRIVEN PER TANK OF FUEL (DIST)

To determine the number of miles or kilometers driven on a tank of fuel, depress "DIST" button. The correct distance per tank will be displayed if you have zeroed out your "DIST" button at the last fill.

FUEL COST

When filling up, the cost per gallon should be entered so that current cost per mile can be calculated. The cost may be checked at any time by depressing "COST" in the fuel section.

FUEL USED

The amount of fuel consumed since the last fill can be displayed anytime by depressing "USED" in the fuel section. The correct amount of fuel used will be displayed if you have zeroed out your "USED" button at the last fill.

If your cost per gallon is consistent over a period of time, you may wish to keep a running account of your cost per mile and fuel used as well as averaging your miles per gallon over several tanks of fuel instead of a single tank. Do not zero out your "USED" or "DIST" buttons and the computer will keep a running account of your fuel economy to a maximum of 999.9 miles.

INSTANT MILES PER GALLON

To determine the instant miles or kilometers per gallon at any time, depress the "INST" button in the "MPG-KPG" section. This function is constantly updated and will show the differences in fuel consumption between various driving techniques.

AVERAGE MILES PER GALLON

Average distance per gallon will display when you depress the "AVE" button in the "MPG-KPG" section. The fuel consumption rate is regularly updated and a memory will always show the latest average MPG or KPG relative to your fuel used and distance driven.

It is important to note that if you wish to display average kilometers per gallon instead of miles per gallon you must have "DIST" entered in kilometers and the "MI/KM" switch in the "KM" mode. The instant "KPG", however, may be displayed at any time by placing the "MI/KM" switch in the "KM" mode, then depressing "INST" in the "MPG-KPG" section.

INSTANT COST PER MILE

The instant cost per mile or kilometer may be displayed by depressing the "INST" button in the "COST/MI-KM" section. This is the momentary cost of driving under a given set of conditions at a preset cost of a gallon of fuel. Small variations in driving techniques will show the differences in the cost of driving.

AVERAGE COST PER MILE

The average cost per mile or kilometer is available on demand by depressing the "AVE" button in the "COST/MI-KM" section. The average cost is regularly updated and based on fuel consumed at a given cost per gallon over the distance traveled.

A typical sequence of programming that would occur when refueling and "ZEROING OUT" for a new tank of fuel follows:

<u>FUNCTION</u>	<u>KEYBOARD</u>	<u>DISPLAYS</u>	
A. Final check on AVE MPG	AVE ☐	24 1.0	1 1.3
	MPG-KPG	Your current 10/20	MPG
B. Check DIST on tank	DIST ☐	24 1.0	230.5
			DIST
C. Check gallons used	USED ☐	24 1.0	20.4
	FUEL		FUEL USED
D. Check AVE COST/MI	AVE ☐	24 1.0	5.3
	COST/MI-KM		COST/MI

To reset calculating functions for next tank of fuel:

E. Zero DIST on tank

0 ENTER DIST

0.0 0.0

F. Zero gallons used

0 ENTER USED

24 1.0 (10/20 returns)

0.0 0.0

G. New cost per gallon at 61.9

6 1 9

24 1.0 (10/20 returns)

6 1.9 0.0

H. Enter into COST

ENTER COST

FUEL

24 1.0 6 1.9

10/20 returns

new COST/GAL

If you are continuing a running account of more than one tank of fuel and the cost per gallon remains the same, do nothing but refill tank and continue trip.

You may wish to reset odometer to zero or "10/20" to zero when refilling as a further reference, however either function may be reset at any other time without affecting fuel economy functions.

RESET

Refer to the computer keyboard chart printed on the inside cover of the manual. To the left of the right display screen you will see a small rectangular opening in the space next to the number 5 button marked "RESET". The "RESET" button will **completely** zero out the computer including the calibration number, all memories, time, cost and mile point locations. Use this button **only** if there has been an electrical interruption to the computer which has caused incorrect data to be displayed or stored. A paper clip or similar small instrument will pass through the opening and by pushing the button, clear for reprogramming.

If your display data seems incorrect and there is no indication of electrical interruption, then the possibility exists that someone may have pushed keys at random thus entering wrong information into one or more function memories. A quick check of the following will confirm whether the computer is properly programmed:

- | | |
|-----------------------|-----------------------|
| A. "CAL" number | E. Fuel "USED" |
| B. "NORM/CAL" setting | F. Fuel "COST" |
| C. "TIME" of day | G. "DIST" on tank |
| D. "MI/KM" setting | H. "RUN" mile counter |

If each function seems to be correct and the information displayed for other functions is still incorrect, then depress "RESET" and reprogram the computer. A weak battery or extremely cold weather can reduce the voltage from your battery, in some cases, to cause a drop in current below the minimum required by the computer. This would then cause an error in the memory necessitating a "RESET" and reprogramming. If there are other problems which cannot be solved by a "RESET", please contact your dealer or write to the factory for assistance. Your Prince On-Board Computer is warranted as explained in the warranty included and will be repaired or replaced at the option of the manufacturer.



MAINTENANCE

Your new Prince On-Board Computer requires very little maintenance. If the installation instructions are followed and the transducers and electrical hook-ups are made correctly, you should enjoy many years of trouble-free operation and informative driving.

The electronics contained in the case has no user-serviceable parts or adjustable components. To keep your warranty valid - DO NOT attempt to open or otherwise tamper with anything contained in the case.

An occasional dusting and cleaning of the case and display lenses is all that will be needed to keep your Prince On-Board Computer looking like new. DO NOT use any solvents on the polycarbonate case, bezel or applique. If soiling should become severe, use a soft cloth dampened with a mild soap solution. Take special care not to get the computer wet or allow any water to enter the circuitry.

Care also must be taken in the routing of the feed cable from the engine sensors to the computer so that no moving mechanical components of the vehicle, such as vent doors, moving cables, or rotating shafts, etc. will come in contact with the cable. If a wire in the cable is severed or cut, it could cause an electrical short causing damage to the vehicle and/or the computer.

Connections to the fuel line for the fuel flow transducer must also be CAREFULLY made so that all connections are tightly sealed and no fuel will leak from them. (See detailed installation instructions).

Use only the mounting bracket supplied or the double face tape to mount your Prince On-Board Computer.



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RUN/STOP—MILE COUNTER

RUN INDICATOR - L.E.D.

ON/OFF—DISPLAY LIGHTING

UP/DOWN—COUNTER

BRIGHT/DIM—DISPLAY LIGHTING

LEFT DISPLAY SHOWS VEHICLE LOCATION, ALSO
USED FOR STAGING ALL ENTRIES INTO COMPUTER

MILES/KILOMETERS—DISTANCE MEASURE

NORMAL/CALIBRATE—MODE

ENTRY KEYBOARD 1—0
DISPLAYS IN LEFT SCREEN

SPEED—VEHICLE SPEED IN MPH OR KPH

ODOMETER—TRIP ODOMETER

10/20—CURRENT VEHICLE LOCATION

DISTANCE ON CURRENT TANK OF FUEL

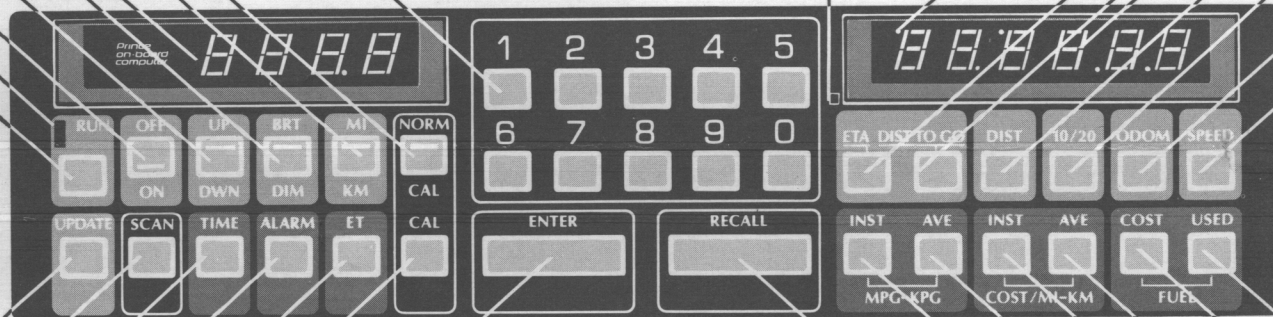
RIGHT DISPLAY SHOWS COMPUTER
DATA ON DEMAND

DISTANCE TO GO ON PRESET TRIP

ETA—ESTIMATED TIME OF ARRIVAL

ELAPSED TIME
INDICATOR

RESET



ENTER
ANY DATA FROM
LEFT DISPLAY SCREEN
INTO COMPUTER

RECALL
ANY OF FIVE
MEMORIES, ELAPSED TIME
OR ALARM

CALIBRATE NUMBER
DISPLAYED IN RIGHT
SCREEN ON DEMAND

ELAPSED TIME—START/STOP
HRS, MIN, SECS USE WITH ENTER & RECALL

ALARM—SET NUMBER OF MINUTES AHEAD
USE WITH ENTER & RECALL

TIME—TIME OF DAY: HRS, MIN, SECS

SCAN—INSTANT REVIEW OF FIVE MEMORIES

UPDATE—ROUNDS OFF TO NEAREST MILE/KM

INSTANT MILES PER GALLON
KILOMETERS PER GALLON

AVERAGE MILES PER GALLON
OR KILOMETERS PER GALLON

INSTANT COST PER MILE
OR COST PER KILOMETER

AVERAGE COST PER MILE
OR COST PER KILOMETER

FUEL COST PER GALLON PAID

GALLONS OF FUEL USED